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Name of Registered Representative:

John C. Freeman  
John C. Freeman, Reg. No. 34,483

April 27, 2001  
Date of Signature

PATENT  
CASE NO. 56/344

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application: )  
Erwin Spanner )  
Serial No.: 09/661,663 )  
Filed: September 14, 2000 )  
For: DEVICE FOR POSITION )  
INDICATION AND DETECTION )  
OF GUIDANCE ERRORS )  
) Group Art Unit: 2857  
)  
) Examiner: unassigned

**INFORMATION DISCLOSURE STATEMENT**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

In compliance with Applicant's duty of disclosure under 37 C.F.R. § 1.56 and in conformance with 37 C.F.R. §§ 1.97-1.98, Applicant hereby submits the following references for consideration by the Examiner. Copies of the references are enclosed along with a completed copy of Form PTO-1449.

**I. DISCLOSURE**

**A. U.S. Patents**

<b><u>Patent No.</u></b>	<b><u>Inventor</u></b>	<b><u>Issue Date</u></b>
4,101,764	Nelle	07/18/78
4,363,964	Schmitt	12/14/82
4,403,859	Ernst	09/13/83
4,459,750	Affa	07/17/84
4,462,159	Nelle	07/31/84
4,479,716	Nelle	10/30/84
4,519,140	Schmitt	05/28/85
4,587,622	Herzog	05/06/86
4,654,527	Schmitt	03/31/87
4,758,720	Aubele et al.	07/19/88
4,884,280	Kinoshita	11/28/89
4,951,399	Ernst	08/28/90
4,999,623	Affa	03/12/91
5,079,418	Michel et al.	01/07/92
5,553,390	Ernst et al.	09/10/96
5,651,187	Affa	07/29/97
5,689,336	Huber	11/18/97

**B. Foreign Patents**

<b><u>Reference No.</u></b>	<b><u>Country</u></b>	<b><u>Pub. Date</u></b>
0 082 441	EP	06/29/83
35 42 514	W: Germany	06/04/87
0 311 144	EP	04/12/89
0 311 279	EP	04/12/89
0 387 520	EP	09/19/90
42 01 331.3	Germany	05/06/93
43 01 971	Germany	08/19/93
91 16 843.0	Germany	04/14/94
43 03 161	Germany	08/11/94
0 660 085	EP	06/28/95

**C. Literature**

1. "Wichtige Begriffe der Mikropositionierung," published by Physik Instrumente (PI), while the date of publication is unknown, it is believed that the article was published prior to September 14, 2000, pp. 7.5-7.6.

**D. Pending Patent Applications Assigned To Dr. Johannes Heidenhain GmbH**

<b><u>Application No.</u></b>	<b><u>Inventor</u></b>	<b><u>Filing Date</u></b>
09/208,127	Mayer et al.	12/09/98
09/485,358	Holzapfel et al.	04/18/00

## II. DISCUSSION

### A. European Reference No. 0 082 441

The pertinence of the '441 patent reference is discussed at pages 1, 2 and 15 of Applicant's application. The '441 patent reference was cited as an A-type reference in a corresponding German patent application. An A-type reference is not considered pertinent to patentability and provides technical background. It is believed that U.S. Patent No. 4,587,622 corresponds to the '441 patent reference.

### B. West German Reference No. 35 42 514

Based solely on the drawings and the enclosed English language Abstract, the '514 patent reference is pertinent because it appears to disclose a correction measurement system for determining guidance errors. The '514 patent reference was cited in a corresponding German patent application. It is believed that U.S. Patent No. 4,758,720 corresponds to the '514 patent reference.

### C. European Reference No. 0 311 144

The '144 patent reference is discussed at pages 14 and 15 of Applicant's application.

### D. European Reference No. 0 387 520

The pertinence of the '520 patent reference is discussed at pages 3, 4, 9, 11, 12 and 13 of Applicant's application. It is believed that U.S. Patent No. 5,079,418 corresponds to the '520 patent reference.

### E. German Reference No. 42 01 331

Based solely on the drawings and the enclosed English language Abstract, the '331 patent reference is pertinent because it appears to disclose two scanning units which face measurement

scales so as to avoid guidance errors. The '331 patent reference was cited in a corresponding German patent application.

**F. German Reference No. 43 01 971**

Based solely on the drawings and the enclosed English language Abstract, the '971 patent reference is pertinent because it appears to disclose a measurement device where changes in angle between the sensing device and a base are detected and a correction value is produced. The '971 patent reference was cited in a corresponding German patent application.

**G. German Reference No. 91 16 843.0**

Based solely on the drawings, the '843.0 patent reference is pertinent because it appears to disclose a measurement system with separate X and Y graduations. The '843.0 patent reference was cited in a corresponding German patent application.

**H. German Reference No. 43 03 161**

Based solely on the drawings and the enclosed English language Abstract, the '161 patent reference is pertinent because it appears to disclose a measurement system with a reference standard for guide error detection. The '161 patent reference was cited in a corresponding German patent application.

**I. European Reference No. 0 660 085**

The pertinence of the '085 patent reference is discussed at page 2 of Applicant's application. The '085 patent reference was cited as an A-type reference in a corresponding German patent application.

**J. Physik Instrumente Article**

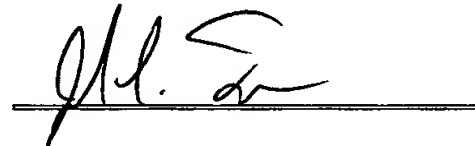
Based solely on the drawings, the Physik Instrumente Article is pertinent because it

appears to disclose a position measuring device.

### **III. CONCLUSION**

It is believed that none of these references, alone or in combination, disclose or suggest the invention claimed. However, Applicant wishes to make it clear that the disclosure of the above references is in no way an admission that they qualify as prior art. It is Applicant's desire, however, to have these references available in the record for both the Examiner and the public to see. Applicant therefore requests that the Examiner review the entire disclosure of each reference and make the above-listed references of record. Applicants also invite the Examiner to review and make of record the cited Heidenhain patent applications, copies of which are enclosed, and the art cited therein.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "J.C. Freeman", is written over a horizontal line.

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